



# DYNAMICS OF TRIBAL POVERTY IN HAZARIBAGH DISTRICT: A MULTIDIMENSIONAL APPROACH

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## ABSTRACT

This study investigates the dynamics of tribal poverty in Hazaribagh district, with a focus on multidimensional aspects of deprivation. Using primary data analysis, the research explores changes in living standards, health, and educational outcomes among tribal communities. The study is based on primary data collected from one village named Lothe, located in Churchu Block of Hazaribagh district. Data were gathered using observation and survey method.

Using MPI variables, the study also looks at how scientific discoveries and technological developments have reduced poverty. There is evidence that improving water filtration systems, integrating renewable energy solutions, and implementing data-driven health interventions can enhance the standard of living in native communities. Although there are still gaps in infrastructure and wider accessibility, the use of solar-powered electricity, portable water purification systems, and mobile healthcare units has specifically improved living standards and health outcomes.

The research concludes by highlighting the **policy implications** for targeted poverty alleviation programs, calling for the application of **science-based solutions** and **research-driven strategies** to address the unique needs of tribal communities in Hazaribagh district. Tailored interventions that incorporate technology and scientific research are essential for sustainable poverty reduction and the holistic development of tribal populations.

**KEYWORDS:** Tribal Poverty, Multidimensional Poverty Index, Poverty Dynamics, Socioeconomic Development

## 1. INTRODUCTION

Tribal groups in India, especially in Jharkhand, have diverse forms of poverty that affects their general quality of life, socioeconomic well-being, and access to resources. According to anthropologist Lalita Prasad Vidyarthi, Jharkhand, which is home to 32 different tribal communities, has a great deal of sociocultural diversity. Each group is classified according to it. From artisanal and settled agricultural techniques to hunter-gathering and shifting agriculture, these communities are involved in a wide range of economic endeavours. In the district of Hazaribagh, where the Churchu CD block is a prime example of these varied cultural dynamics, Scheduled Tribes make up about 24.12% of the population. With 66 families and 366 residents according to the 2011 Census, the village of Lothe inside this block provides a useful microcosm of the struggles and resiliency of tribal groups that are socioeconomically marginalized.

The multifaceted character of poverty among tribal groups, particularly in the Churchu block of Hazaribagh, is the main emphasis of this study. Living standards, health, and education are three important aspects of deprivation that are examined in this study by using a multidimensional poverty index (MPI) approach. These factors show the intricate relationships between health inequalities, limited access to high-quality education, and financial constraints. Notably, recent advances in science and

technology have offered encouraging ways to mitigate some of the negative effects of poverty in these areas. To enhance living conditions and health outcomes for the indigenous community, for example, mobile healthcare units, portable water filtration devices, and solar-powered energy have been implemented. Although there are still infrastructure and accessibility issues, these science-driven measures have had a noticeable impact.

In order to reflect the complex effects of scientific and technological developments on the dynamics of poverty in Hazaribagh, this study makes use of primary data from the village of Lothe. This study helps create focused, evidence-based policy suggestions to support long-term poverty reduction and holistic development in tribal areas by recognizing the particular difficulties encountered by tribal groups.

This study's importance stems from its emphasis on comprehending the complex nature of tribal poverty and identifying creative, evidence-based approaches to long-term poverty reduction. This study intends to provide workable, evidence-based solutions to poverty in Jharkhand's tribal communities by evaluating the effects of technology-driven interventions—such as solar power, portable water purification devices, and mobile healthcare—on living standards, health, and education. Such understandings are crucial for developing policies that respect the traditional identities of tribal people

and serve their unique needs while advancing advancements in economics, health, and education. As a result, this study supports larger initiatives to attain sustainable development and lessen inequality, enabling the tribal people of Jharkhand to take part more actively in India's socioeconomic advancement.

## 2. STATEMENT OF THE PROBLEM

The tribal communities in Jharkhand's Lothe village suffer greatly from a variety of poverty-related issues. Their living standards are limited and they are exposed to health risks due to inadequate housing, poor sanitation, unclean drinking water, and a lack of electricity. Due to a lack of health services, many people do not receive timely care or nourishment, and most people still cannot access education because of low literacy rates and low attendance rates. These interconnected issues reveal a harsh reality in which opportunities and basic utilities are still out of reach, for sustained poverty reduction that is adapted to the particular difficulties faced by tribal people, this study is essential for identifying focused initiatives, assessing technology-driven solutions, and creating evidence-based policy. hence preventing the community from achieving holistic development and sustaining poverty.

## 3. RESEARCH OBJECTIVE

1. To assess the severity of living standard deprivation among tribal communities in Lothe village, with an emphasis on important MPI indicators.
2. To investigate the aspects of poverty that are related to health.
3. To examine the inequalities in education that tribal groups encounter.

## 4. RESEARCH METHODOLOGY

### 1. Study Area and Population

Lothe, a small village in Churchu Block, Hazaribagh, was chosen as the study area because of its multifaceted socioeconomic problems and predominately tribal population. Lothe is a small yet representative microcosm of the tribal villages in the area, with 366 residents overall and 66 households, according to the 2011 Census.

### 2. Data Collection Methods

- **Survey Method:** Selected homes were given a structured survey with questions specific to the MPI components of education, health, and living conditions. The following topics were covered in the survey: Housing conditions (wall, roof, and floor materials). availability of drinking water, sanitary amenities, and electricity. frequency of dietary habits and availability to healthcare. educational attainment, reading skills, and school attendance.
- **Observation:** Survey replies were verified through direct observations. The village's living circumstances, home amenities, sanitation standards, and access to medical and educational resources were the main areas of observation.
- **Interviews:** Key informants, such as school teachers, healthcare professionals, and village elders, participated in semi-structured interviews to get qualitative information about the root causes of poverty and the efficacy of current treatments.

## 3. Research Design

For a thorough analysis, the study uses a mixed-methods approach, combining quantitative and qualitative data:

- **Quantitative Data:** Gathered via organized questionnaires, this information offers quantifiable understanding of MPI parameters.
- **Qualitative Data:** This data, which was gathered through interviews and focus group discussions, provides deeper insights into the lived realities of tribal groups and contextual understanding.

## 4. Sampling Strategy

The study uses a census sampling strategy to ensure that all households are included in the survey, despite the research population's relatively small size (66 households). This methodology guarantees thorough coverage while reducing sample bias.

## 5. Data Analysis

### Objective 1: Living Standards

- **Variables:** Type of housing, access to clean water, electricity, and sanitation facilities.
- **Method:** Descriptive statistics and MPI scoring to quantify the severity of deprivation. Observational data will be used to corroborate survey findings.

### Objective 2: Health

- **Variables:** Healthcare access, frequency of illness, nutrition levels, and hygiene practices.
- **Method:** Qualitative insights from interviews will provide context to the quantitative results.

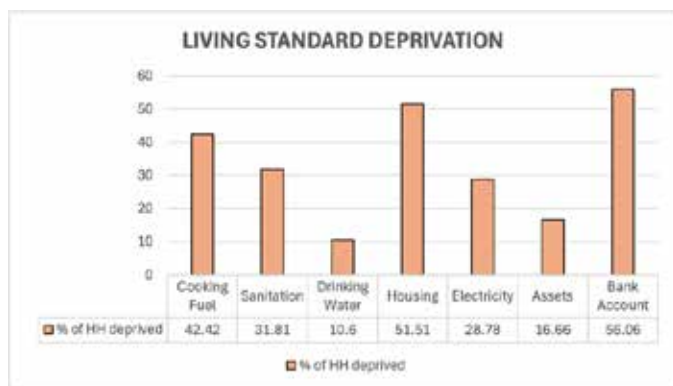
### Objective 3: Education

- **Variables:** Literacy rates, school attendance, and educational attainment.
- **Method:** Focus group discussions will highlight barriers to education and possible interventions.

## 5. FINDINGS

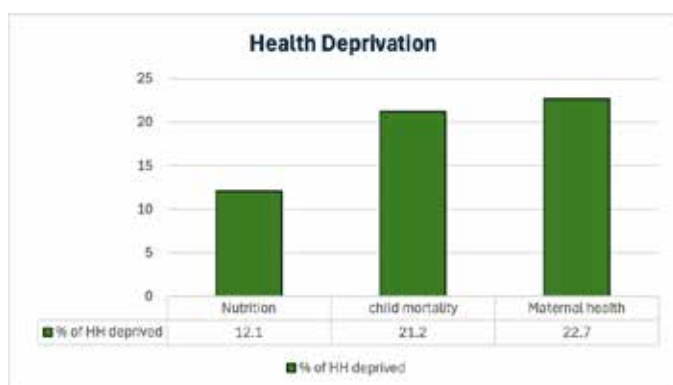
### Objective 1: Living Standards

There are notable differences in the assessed households' living standard deficiency across several important metrics. Housing deprivation affects more than half of the households (51.51%), indicating subpar or insufficient living circumstances. 31.81% lack adequate sanitary facilities, and 42.42% have difficulty accessing clean cooking fuel. Energy access issues are highlighted by the fact that 28.78% of homes are affected by electricity deprivation. Relative progress in water availability is shown in the fact that just 10.6% experience drinking water deprivation. Nonetheless, the high proportion of households without a bank account (56.06%) and restricted access to assets (16.66%) draw attention to financial and infrastructure issues, highlighting the necessity of focused poverty alleviation initiatives.



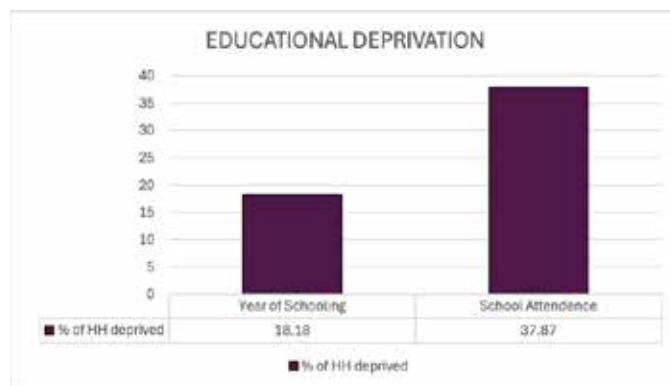
### Objective 2: Health

Important areas of concern are highlighted by the Lothe village health deprivation analysis. With 22.7% of households affected, maternal health deficit is a serious issue that suggests difficulties in accessing prenatal and postnatal care. With 21.2% of households living in this type of deprivation, child death rates are especially alarming, highlighting the need for better healthcare and child welfare programs. Despite being decreased, 12.1% of households experience nutrition deprivation, which raises the possibility of food insecurity and dietary deficiencies. In order to improve overall health outcomes in the village, our findings highlight the urgent need for improved healthcare facilities, focused mother and child health initiatives, and dietary interventions.



### Objective 3: Education

Significant differences in schooling and attendance are found in the homes examined by the educational deprivation analysis. The fact that 37.87% of households do not attend school indicates that there are obstacles to regular access to education, which may be brought about by sociocultural, infrastructure, or financial constraints. Furthermore, 18.18% of household members report deficiency in years of education, indicating low levels of educational achievement. These results highlight the necessity of focused efforts to raise school enrolment and retention rates in addition to initiatives to encourage lifelong learning. Reducing educational gaps and improving learning outcomes can be achieved by addressing these issues through community awareness campaigns, better school facilities, and scholarships.



## 6. CONCLUSION

This study focuses on living standards, health, and education in order to illustrate the complex nature of tribal poverty in Lothe village. Significant gaps are found in important sectors such as housing, sanitation, access to power, maternal health, child mortality, nutrition, and educational attainment. Even while there has been modest improvement in asset ownership and water availability, enduring problems highlight the complexity of multifaceted poverty. According to the data, 42.42% of households struggle with clean cooking fuel, 31.81% lack adequate sanitation, and 51.51% endure housing deprivation. Health issues, such as deficiencies in mother and child health, and educational disparities in years of education and school attendance continue to be major obstacles.

Innovative scientific methods that have shown potential in enhancing living conditions and lowering health disparities include portable water purification systems, solar-powered energy, and mobile healthcare units. Nonetheless, disparities in accessibility and infrastructure still impede comprehensive growth. Evidence-based policies must incorporate these research-based solutions with focused interventions, community involvement, and government assistance in order to reduce tribal poverty in a sustainable manner.

According to this study, reducing poverty requires a complex, multifaceted strategy that honors tribal traditional identities and uses technology to advance socioeconomically. Through tackling the distinct obstacles encountered by tribal populations, this study aids in the creation of inclusive and sustainable approaches to poverty alleviation and tribal empowerment in Jharkhand.

## 7. LIMITATION OF THE STUDY

- **Restricted Time Frame:** Because the study relies on data gathered over a particular time period, it might not accurately represent long-term patterns or seasonal fluctuations in health, education, or living situations.
- **Dependency on Self-Reported Data:** The accuracy of results derived from surveys and interviews may be impacted by response biases, such as the underreporting or overreporting of specific indicators.
- **Limited Technological Analysis:** Although the study recognizes the importance of scientific discoveries, it skips over a thorough examination of the technologies' viability from an economic, scalability, and cultural standpoint for broad use.

- Exclusion of Broader Structural Factors: The study may have missed systemic problems like land rights, migration, governance, and more general socioeconomic policies that also contribute to tribal poverty because it mainly concentrates on MPI indicators and localized remedies.

## 8. SUGGESTIONS

- Enhancing Living Standards: Reduce housing insecurity by implementing cost-effective home plans with environmentally friendly layouts that are adapted to regional requirements. Encourage the use of renewable energy sources, such as solar power, to provide steady supply to electricity. Invest in community-based sanitation and clean water initiatives that incorporate cutting-edge waste management and filtration technologies.
- Improving Health Outcomes: To deliver prompt medical attention in rural locations, set up telemedicine services and mobile healthcare units. In order to guarantee access to prenatal and postnatal care, strengthen mother and child health services. Start food security programs and community nutrition campaigns that encourage kitchen gardens and sustainable farming methods.
- Enhance educational facilities, offer transportation, and implement programs for vocational training in order to promote education. To boost enrollment and retention rates, introduce incentives and scholarships for tribal children, particularly girls. Put in place digital literacy initiatives to provide young people with skills for the twenty-first century.
- Government Role: The government should increase funding for tribal welfare programs and make sure they are carried out successfully. Collaborations with private and non-profit groups can aid in the expansion of community development initiatives and scientific interventions. Accountability and inclusivity will be guaranteed by routinely monitoring and assessing policies using participatory methods.
- Sustainable Approaches: To increase resilience against environmental difficulties, highlight sustainable technology like solar panels, biogas plants, and rainwater harvesting. By teaching tribal populations artisanal crafts and ecotourism, you may encourage local business. To guarantee long-term acceptance and success, coordinate interventions with tribal customs and knowledge systems.

The government, scholars, and communities can work together to lessen deprivation and promote sustainable development for Jharkhand's tribal populations by implementing these strategies.

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